

	SIRS (diagnostic)	NEWS Points (diagnostic)	PRESEP Points (diagnostic)	SOFA Points (prognostic)	qSOFA Points (prognostic)	SPEED Points (prognostic)	MEDS Points (prognostic)	PIRO Points (prognostic)
Temperature (°C)	> 38.0 or < 36.0	1 = 38.1-39 or 35.1-36 2 = ≥ 39.1 3 = ≤ 35	1 = < 36.0 4 = > 38.0	—	—	3 = < 36.0	—	—
Heart rate (beats/min)	> 90	1 = 41-50 or 91-110 2 = 110-130 3 = < 40 or ≥ 131	2 = > 90	—	—	—	—	2 = > 120
Respiration rate (breaths/min)	> 20	1 = 9-11 2 = 21-24 3 = ≤ 8 or ≥ 25	1 = > 22	—	0 = < 22 1 = ≥ 22	—	3 = > 20	3 = > 20
Blood Pressure (mmHg)	—	(sBP) 1 = 101-110 2 = 91-100 3 = < 90 or ≥ 220	(sBP) 2 = < 90	1 = MAP < 70 2 = DA ≤ 5 or DBA (any dose) 3 = DA 5-15 or EPI ≤ 0.1 or NE ≤ 0.1 4 = DA > 15 or EPI > 0.1 or NE > 0.1	(sBP) 1 = ≤ 100	(sBP) 3 = < 90	—	(sBP) 4 = < 70 2 = 70-90
Peripheral oxygen saturation (%)	—	1 = 94-95 2 = 92-93 3 = ≤ 91 *supplemental O <sub>2</sub> +2 pts	2 = < 92	—	—	2 = < 90	3 = < 90	3 = respiratory failure or hypoxemia
PaO <sub>2</sub> /FIO <sub>2</sub> (mmHg)	—	—	—	1 = < 400 2 = < 300 3 = < 200 4 = < 100	—	—	—	—
WBC (10 <sup>3</sup> cells/mm <sup>3</sup> )	> 12 or < 4	—	—	—	—	—	—	—
Band Proportion (%)	> 10	—	—	—	—	—	3 = > 5	1 = > 5
Hematocrit (%)	—	—	—	—	—	2 = < 38	—	—
Platelet count (platelets x 10 <sup>3</sup> /mm <sup>3</sup> )	—	—	—	1 = < 150 2 = < 100 3 = < 50 4 = < 20	—	—	3 = < 150	2 = < 150
Lactate (mmol/L)	—	—	—	—	—	2 = > 2.4	—	3 = > 4.0
pH	—	—	—	—	—	1 = < 7.35	—	—
Bilirubin (mg/dL)	—	—	—	1 = 1.2-1.9 2 = 2.0-5.9 3 = 6.0-11.9 4 = > 12.0	—	—	—	—
BUN (mg/dL)	—	—	—	—	—	—	—	2 = > 20
Creatinine (mg/dL)	—	—	—	1 = 1.2-1.9 2 = 2.0-3.4 3 = 3.5-4.9 4 = > 5.0	—	—	—	—
Altered mental status	—	3 = V, P or U	—	(GCS) 1 = 13-14 2 = 10-12 3 = 6-9 4 = < 6	(GCS) 1 = < 15	—	2 = By history or exam	—
Immunosuppressed	—	—	—	—	—	3 = Yes	—	—
Infection	—	—	—	—	—	2 = pneumonia	2 = lower respiratory tract	4 = Pneumonia 0 = Soft tissue 2 = Other
COPD	—	—	—	—	—	—	—	1 = Yes
Liver disease	—	—	—	—	—	—	—	2 = Yes
Malignancy	—	—	—	—	—	—	—	1 = Non- metastatic 2 = Metastatic
Terminal illness <sup>a</sup>	—	—	—	—	—	—	6 = Yes	—
Nursing Home Resident	—	—	—	—	—	—	2 = Yes	2 = Yes
Age (years)	—	—	—	—	—	—	3 = > 65	1 = 65-80 2 = > 80
Septic Shock <sup>b</sup>	—	—	—	—	—	—	3 = Yes	—

sBP = systolic blood pressure. MAP = mean arterial pressure. DA = dopamine (mcg/kg/min). DBA = dobutamine (mcg/kg/min). EPI = epinephrine (mcg/kg/min). NE = norepinephrine (mcg/kg/min).

<sup>a</sup> Terminal illness = illness with a poor prognosis that would likely result in death within six months of diagnosis – mainly Stage IV cancer or a patient on hospice care

<sup>b</sup> Septic shock ≡ at least 2 SIRS criteria (heart rate > 90, respiratory rate > 20 or PaCO<sub>2</sub> < 32 mmHg, temperature > 100.4°F (38°C) or < 96.8°F (36°C), WBC > 15,000/mm<sup>3</sup> or < 4000/mm<sup>3</sup> or bands > 10%) + organ dysfunction + hypotension (systolic blood pressure < 90) that persists after a bolus of 20 mL/kg

### **Interpretation of Existing Scores:**

**SIRS (diagnostic)** - Inclusion of  $\geq 2$  of the included criteria meets the SIRS definition. WBC and percentage of bands is considered one criterion.

**NEWS (diagnostic)** - Add up points.

- Score:
  - 1-4: prompt assessment by a competent registered nurse who should decide if a change to the frequency of clinical monitoring or an escalation of clinical care is required.
  - 5-6 or a RED score (an extreme variation in a single physiological parameter (i.e., a score of 3 in any one physiological parameter in the NEWS column): prompt an urgent review by a clinician skilled with competencies in the assessment of acute illness.
  - $\geq 7$ : prompt emergency assessment by a clinical team/critical care outreach team with critical-care competencies and usually transfer of the patient to a higher-level care team.

**PRESEP (diagnostic)** - Add up points.

- Score:
  - $\geq 4$ : possible existing septic disease

**SOFA (prognostic)** - Add up points.

- Score:
  - 0-6:  $< 10\%$  mortality
  - 7-9: 15-20% mortality
  - 10-12: 40-50% mortality
  - 13-14: 50-60% mortality
  - 15:  $> 80\%$  mortality
  - $>15$ :  $> 90\%$  mortality

**qSOFA (prognostic)** - Add up points.

- Score:
  - 0-1: not high risk for in-hospital mortality
  - 2-3: high risk for in-hospital mortality (3- to 14-fold increase)

**SPEED (prognostic)** - Add up points.

- Score:
  - $< 3$ : 11.0% mortality
  - 4-6: 29.7% mortality
  - 7-9: 57.2% mortality
  - $> 10$ : 93.8% mortality

**MEDS (prognostic)** - Add up points. If a respiratory rate  $>20$  and a peripheral oxygen saturation  $<90\%$  are both present, only a single score of 3 will be added to the collective total score.

- Score:
  - 0-4: 0.9-1.1% mortality
  - 5-7: 2-4.4% mortality
  - 8-12: 7.8-9.3% mortality
  - 13-15: 16.1-20.2% mortality
  - 16-27: 39-50% mortality

**PIRO (prognostic)** - Add up points. If a patient has pneumonia with another infection, it is scored as 4.

- Score:
  - $< 5$ : 0% mortality
  - 5-9: 1.9% mortality
  - 10-14: 6.5% mortality
  - 15-19: 24% mortality
  - $\geq 20$ : 57% mortality